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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

CHLORAL IN THE TREATMENT OF TRAUMATIC TETANUS.

BY WILLIAM READ, M.D.

Read before the Suffolk District Medical Association.

Cumulative evidence with regard to the action of drugs on disease is what is required to enable the physician to discriminate between the active and the inert. Dr. Roberts (MEDICAL AND SURGICAL REPORTER, Sept. 14th, 1878) has given, with the two cases he reported, a very full resumé of the therapeutics of tetanus, and the following case is submitted for the purpose of adding one more to the great number already on record in which chloral has been given with a favorable result. It certainly corroborates the remark of the editor of the *Practitioner* (Aug. 1877, p. 115): "Innumerable cases of the action of chloral are reported. To make any digest of them would be impossible; but in reading them, one becomes convinced of two facts: the first, that large doses must be given, and may be given without fear; the second, that such a treatment is most valuable."

I was called, on February 9th, to attend Mrs. —, aged 42, who, an hour previous to my arrival, had been severely bitten in the right wrist, over the head of the radius, by a Pomeranian spaniel. The injury was a lacerated wound, quite deep, about an inch in length, and gaping. Dr. Fernold, who had been called in my absence, had already thoroughly cauterized the parts, and after an injection of one-eighth grain of morphia into the arm above the elbow, a poultice was

ordered to be placed over the wound. This was about 12½ P.M.

10th (Sunday). Patient was very comfortable till about 4 P.M., yesterday, when she began to have pains of a paroxysmal character, which extended from the wound at the wrist to the shoulder. Finally got to sleep, late in the night, by aid of large doses of whisky. This A.M. the pains have come on again, and at the time of the visit (10½ A.M.) were jumping along the right arm, down the side, to the right foot, and were particularly bad at the heel, along the tendo-achillis. Patient was ordered 30 grains bromide potass. in 1 drachm of ex. fl. scutellaria, every two hours, and the poultice was wet with tr. opii over the wounded surface. At 1 P.M. I received a pressing call, and found patient in the greatest agony. With scarce an interval, she was suffering from spasms, accompanied with intense pain, extending from the head to the toes on the affected side, throwing her into what looked like opisthotonos, with a good deal of lividity of the face. Dr. Cabot was called in consultation, and saw the patient about 3 P.M. After a good deal of doubt as to how much of the symptoms were due to hysteria, many of the symptoms of true tetanus being wanting, and at that time no rigidity of the muscles during the spasm being detected, it was decided to treat the case as if it were tetanus, and accordingly patient was ordered to have 30 grains chloral every two hours, in addition to the bromide of potass. already given. From the urgency of the symptoms the dose was repeated in one hour, and soon after she fell asleep.

6 P.M. Has wakened once, with a few slight spasms, and after another dose of the medicine relapsed into sleep.

9½ P.M. Slept two hours after last record. Has been awake, in an excited, partially wild state, for an hour; gave her another dose of the chloral, and in a short time patient fell asleep again. (This wild state was explained later in the disease. When she came out from the influence of the chloral so far as to be thoroughly awake, she said that she thought the bite had produced or was about to produce hydrophobia, and her anxiety was to drive away her friends from her side, and to avoid biting any of those who were around her. This accounted for the extraordinary excitement at that time, and probably also when Dr. Cabot saw her first).

11th (Monday), 9 A.M. Slept most of the night, with occasional attacks of spasm in the right side, and a constant ache in the wrist. Head free from excitement. Takes nourishment freely and in sufficient quantities.

2 P.M. Had slept nearly all the time since last record. Occasionally the spasms recur, and all the time the wrist aches. Continued treatment.

9 P.M. Paroxysms have been fewer since last record. Laboring under strong hallucinations. Continued treatment.

12th (Tuesday), 9 A.M. Had a very comfortable night. Much more rational. Continued treatment.

2 P.M. Had one paroxysm of pain, of moderate severity, at 12 o'clock. Lies in a semi-stupid state most of the time. Head full of all sorts of strange ideas. Has four principal spots of pain—the fingers, the toes, a spot just below the spine of the scapula, midway of its length, and another just above the crest of the ilium. The wound aches all the time. Slough separating. Right forearm swollen, but not hard, and showing no red line along the course of the absorbents. Abdomen swollen, full of wind, but not tympanitic. Reports that yesterday the discharges from the bowels were so frequent as to bring on hemorrhoids, with great suffering. Urine scanty, and scalding in the passage. Diminish the dose of chloral to once in six hours.

7 P.M. Was called suddenly. Has had three or four paroxysms of pain. Hallucinations continue. Pulse 88; temperature 100. In the course of the afternoon had two or three pretty severe chills, just before the spasms came on. During these the teeth chattered, but the flesh was not cold to the touch, nor was there any horripilation. Ordered the chloral to be omitted, and in its stead have the bromide of ammonium and bromide potass., fifteen grains each, every two hours, p.r.n. No paroxysm for a whole hour. Without any warning the spasms reappeared

with great severity, and kept up. Dr. Cabot was called again. While he was present an attack of real and unmistakable opisthotonos came on. The muscles of the neck became rigid, and the jaws were tightly clenched. It was then decided to go back to the chloral, in its first dose, every two hours, in addition to the bromides then being taken, and if thought best, to have patient put under the effects of ether. At this time patient complained of soreness at the bend of the elbow, in the right groin, and in the popliteal space. Pressure at these points showed enlarged glands—as large as a small grape—and the pain produced by the pressure was communicated to the whole of the affected side, along the old track, from the end of the fingers to the toes. About 11 P.M. the spasms increased both in frequency and severity, and the back was very much arched. The muscles of the neck, the long muscles of the spinal region on both sides, and the muscles of the right leg and foot, were thrown into hard contraction, and the jaws were tightly clenched. The face was very much congested and the head was drawn back almost to the spine. As soon as it passed off thirty grains chloral and thirty grains of the bromides were administered, and the ether got ready. At 2.15 A.M. a third dose of equal size was given, up to which time no return of the spasm had occurred. Slept quietly till 4.10 A.M., when a half dose was given. No return of the spasm. At 4.30 A.M. a spasm came on, with less of the opisthotonos than at 11 P.M. Another half dose of the chloral and bromides was given, and the ether administered until the paroxysm passed off. Patient soon went to sleep. She was left at 5.30 A.M., with directions to continue treatment.

13th (Wednesday), 11 A.M. For the past four hours Dr. Robert M. Read has been with patient. He reports no return of the spasms. Patient is quite rational. Suddenly there came an attack, while patient was lying on her face, which curved the body so much that the legs and head were drawn up from the bed, and the weight of the body rested on the epigastric region. Had she been lying on a smooth, level surface, she could have been easily turned round as on a pivot. This, like the last, was easily broken up by the ether.

1 P.M. She had one moderate spasm, easily controlled by the ether. Remained with patient until 3 P.M., during which time there was no return of the attacks. 7 P.M. Since last record patient has been in the charge of Dr. R. M. Read, who reports no return of any uncomfortable symptoms. Patient has been taking 30 grains

chloral and 30 grains bromides regularly every two hours since 10 o'clock P.M. (Tuesday), 12th, 48 hours—24 doses. Staid with patient until 2 A. M. Thursday, when Dr. R. M. Read took charge. Ordered the dose of medicine to be given every 3 hours, and if patient was quiet to increase the interval.

14th (Thursday), 9 A. M. Dr. Read reports no return of the attacks. Patient thoroughly stupefied by the medicine. Pupils contracted. Sleeping heavily, but can be roused, and answers questions after a fashion. Diminished dose one half.

1 P. M. Had a slight chill about noon, which was easily broken up by putting a few more clothes on the bed. Has now slept quietly, except when roused to take nourishment or medicine, for more than twenty-four hours. The bowels having had no movement for several days, an enema was given, which operated freely.

8 P. M. Sleeping quietly, and no return of the attack. The interval between the doses was now increased to five hours. At 11 P. M. I left her in charge of Dr. R. M. Read.

15th (Friday), 9½ A. M. No return of the spasms from time of last record. Wound on wrist suppurating freely. To have only bromide potass. every six hours.

1 P. M. Comfortable.

6 P. M. In a satisfactory condition as to the spasms, but is very hysterical and flighty. Complaints of pain low down in the abdomen. Gave her 30 grains bromide potass. in addition to 15 grains administered about an hour ago. Applied a sinapism to pubic region. Imagines the ceiling and walls of the chamber to be covered with blood spots and cobwebs, and that spiders and bugs of all kinds are dropping on her in quantities; to avoid them she covers her head with the bed clothes. 10 P. M. More quiet. Complaints of pain everywhere, but it is doubtful whether it is real. To continue the bromide every two hours through the night.

16th (Saturday), 9½ A. M. Excitement growing less. Diminished the dose of the bromide one half.

1½ P. M. Excitement continues to diminish. Continued treatment.

9 P. M. Patient is now quite rational most of the time, though she cannot believe that the cobwebs and blood spots are not real. The bugs have entirely gone.

17th (Sunday), 9½ A. M. Menstruation came on in the night, with a good deal of pain, and has temporarily increased the head symptoms. To have—

R. Valer. ammon.,	gr. x	
Bromide potass.,	3 ss	
Ol. caryophyll.,	gtt. iij	
Syr. aurant. flor.,	3 j.	M.

Sig.—3j once in six hours.

9 P. M. The hallucinations, mixed with rationality, have continued all day. Still menstruating, but in a very scanty degree. Pain less than at last record. To omit all medicine.

18th (Monday), 9 A. M. Slough at wrist has separated. Applied straps to wound.

8 P. M. Doing well. The mind is gradually coming to itself, though she cannot disabuse herself of the hallucinations.

19th (Tuesday). No material change.

20th (Wednesday). No material change.

21st (Thursday). No material change. The mental condition continues, with very slight diminution.

22d (Friday). Has been more quiet.

9 P. M. Continued to improve.

23d (Saturday). Improvement.

24th (Sunday). Improvement; the hallucinations, or rather, the impression that what she thought she saw was real, have not entirely disappeared. She does not see any cobwebs or blood spots, but is very much excited if any attempt is made to reason her out of it.

28th. Has got entirely rid of the unnatural mental condition. Went down stairs with the family.

March 5th. Wound on the wrist entirely closed over. Patient seems to be convalescent. The only thing remaining is an overwhelming dread of hydrophobia in the future. The time she has set for its appearance is six months from the date of the bite. This belief is absolute. No reasoning, no asseverations to the contrary, no encouragement, can shake it.

Of the dog, it may be said that there was no evidence at all of its unhealthiness. The bite was given instantly, upon a motion of the patient which the dog construed into a threat.

March 25th. In good general health. The seat of the bite gives her great suffering. It swells, becomes purple in color, and lancinating pains extend from it up the arm, to the shoulder.

In the time between Sunday, February 10th, at 3 P. M. and Friday, 15th, at 9 A. M., 114 hours, patient took 1710 grains of chloral (three ounces, four-and-a-half drachms) and at least as much of bromide of potass. and bromide of ammonium in equal parts. Taking the whole time between the commencement of its administration, until it was omitted, the average dose was 350 grains for each twenty-four hours, a larger quan-

tity than I have seen reported, but which was perfectly well borne, and apparently brought about the favorable termination of the attack. Patient has continued well up to the present date. The only remaining trouble is in the eschar of the wound, which at times burns as if a coal of fire was placed on the skin, swells and puffs up above the level of the surrounding skin, and becomes very livid in color.

INSTRUMENTAL INTERFERENCE IN UTERINE DISPLACEMENTS.

BY O. E. HERRICK, M.D.,
Of Greenville, Mich.

Perhaps there is no subject which has so occupied the minds of medical men, or been the theme of so great a number of essays and papers, as that of uterine diseases and displacements. Wide apart as their theories have been, still, if possible, their treatment has been even more conflicting than their pathology. Yet, notwithstanding all these differences of opinion, the science of gynecology has made more rapid strides toward perfection since Dr. Hodge discovered the uterine pessary, and the instruments devised have become each year nearer to the class of instruments known as instruments of precision. The name of Dr. Hodge will always be remembered and mentioned with veneration by the profession, and will be classed with the names of other great discoverers in medicine; but his, like their discoveries, should be improved upon as medical science moves onward toward its place among the *exact* sciences. I apprehend that the class of physicians who have denounced anything like instrumental interference in the different displacements of the uterus are becoming fewer as the years go by; until now nearly all teachers on female diseases urge the judicious use of pessaries as one of the chief means of treatment of those troublesome diseases. Unquestionably there are a few physicians yet who stoutly oppose pessaries in any form, and will continue to treat their patients afflicted with displacements, in the future, as in the past, with iron and bitter tonics, with mild laxatives, etc., maintaining their belief in the efficacy of such treatment alone, and frowning upon the brother practitioner who dares to make capital by treating those same patients, when they fall into his hands, by modern means, and after modern notions, persisting that all pessaries do absolute harm instead of good, even after a radical cure has been effected in the same patients which they

may have assiduously plied with tonics for a quarter of a century.

I cannot forbear giving one example to illustrate this class of practitioners. An old gentleman physician of my acquaintance, whose counsel and judgment I should value very highly upon most subjects, said, at a late meeting of a local medical society, "displacements of the uterus should hardly be classed as a disease; they seldom cause the patient much harm or inconvenience; why, I have known women who went about with the os-tinæ protruding through the labia the most of the time for twenty years, and yet did all the work for a large family, and occasionally 'gave the husband a lift with his work.'" What an argument against treating, and devising better means to treat, a very distressing and common malady! What untold miseries those poor women must have suffered! what a wearied existence! to work hard, day after day, with the os protruding; what a boon a properly adjusted pessary would have been to those suffering patients of the, to say the least, obstinate and negligent doctor. Those physicians who "do not, and never have, used anything in the shape of a pessary," as is too often their boast at meetings of medical societies, are, I fear, men who are in the habit of letting such patients glide along from one year to another, simply using palliative measures, until some troublesome brother practitioner comes along, and accomplishes in a few short weeks what the tonic and expectant plan had failed to do after long years of trial. It is a well known fact that all of our most successful and noted gynecologists both use and recommend their students to use some kind of mechanical support in the treatment of uterine displacements. Dr. J. Marion Sims said, before the Section on Obstetrics and Diseases of Women, at the meeting of the American Medical Association, at Detroit, "I insist that if gentlemen will adapt the instrument properly it will prove of great service. Where failures occur, it is the physician who fails, and not the principles of the instrument. Changes must occur in the uterus from time to time, and it is only by experience, diligent study and research, we are able always to meet the individualities of a case."

I think the reader can easily conjecture, from the preceding pages, that I am an advocate of "instrumental interference" in uterine displacements. I consider it just as essential to the ultimate recovery of the patient, in any displacement of the uterus, to have a properly adjusted pessary, as that a proper splint should be applied to a fractured bone; and after a pessary is introduced

it should receive nearly as much attention. What would be thought of the surgeon who adjusted a splint to his patient's thigh, and then paid no further attention to the case? And yet this is exactly the situation with a large number of physicians who adjust pessaries; the patient is left to remove the instrument herself, or wear it to the end of her days. I apprehend that much of the opposition to the mechanical treatment of uterine displacements emanates from the above mentioned class, and the only thing to be wondered at is that they ever use them. In my opinion physicians should, if they treat such cases at all, treat them to cure the difficulty, and not simply to palliate the symptoms. If there is a deformity in the shape of an enlarged vagina, from rupture, either partial or complete, during childbirth, or from any other cause (for I believe the vagina to be the principal support of the uterus), an operation should be performed to reduce it to its normal size, then a proper pessary introduced, to keep the displaced organ in position until the vagina heals and is able to sustain the weight and give the support nature intended it should. After that is accomplished the instrument may be removed, when the uterus will usually remain in place. When we consider the anatomy of the vagina, and notice that external to the mucous membrane its walls are constructed of fibro-cellular tissue, which, in the normal state, is contracted sufficiently strong to throw the mucous membrane into numerous transverse folds, and which can be contracted at the will of its owner, it is very easy to see that anything which tends to weaken these walls, or prevent them from being contracted at will, is liable to be followed by descent of the uterus, there being nothing to support it from the bottom; consequently, from force of gravity, it descends, putting all its ligaments upon the stretch, thus causing all of those distressing symptoms usually met with in uterine displacements.

I believe that procidentia uteri is nearly always preceded by relaxation and dilatation of the vaginal walls, either from childbirth or from long continued leucorrhœa, or excessive coitus; or, as in one case which came under my own observation, where the vagina had been occupied for several years with a large fibroid, which distended and destroyed the contractility of the muscular fibres of the vagina, so that after the tumor had been removed the vaginal walls did not recover their tonicity. I have never yet seen a case of uterine displacement without a corresponding weak and dilated vagina, and if we press our inquiries close enough, we shall always find, in all

such cases, some of the above mentioned causes to account for the displaced uterus and dilated vagina, excepting, of course, those cases where there is an accumulation of liquid in the abdominal cavity, or a voluminous ovarian or other tumor, which may displace the organ downward, from the pressure from above, in which case the vagina may be natural.

I will give only two cases, which will serve to illustrate the preceding paragraphs:—

CASE 1.—Mrs. C., aged thirty-three years; married eleven years ago; has never borne any children. About eight years ago she noticed that there was something growing in her vagina, and after about a year from first discovering it sought medical advice, and was told she had a fibroid tumor; an operation was advised, but she did not submit to it until about two years after, when she had it removed. Has been troubled with a displaced uterus and leucorrhœa almost all of the time since, about five years; had been treated by many different physicians, with different methods, and has worn many pessaries, some of which gave her temporary relief, but never could wear them over a week at a time, because of the irritation they produced. Upon examination I found the vagina dilated and flabby, the uterus prolapsed and anteverted, and about twice its normal size. I applied a pessary made of a soft rubber ring, with a silver wire attached, which served for a stem and also as an electrode for the galvanic apparatus (described in the number of this journal for Nov. 23d). She wore this pessary with galvanic attachment for about two months, when I removed the galvanic portion, and left the simple pessary, which she continued to wear for about four months longer; I then removed it altogether and she has continued well. During the time she was wearing the pessary, it was only found necessary to remove it twice. For the first two months I gave her—

R. Fl. ext. ergot,
Fl. ext. viburnum prunifolium
Fl. ext. viburnum op., ʒā ʒij. M.

SIG.—Take a teaspoonful three times a day.

CASE 2.—Mrs. H., aged 56, and the mother of eight children, the youngest one of which is about twenty years of age. This patient's difficulties dated from her last confinement. A vaginal examination revealed a prolapsed uterus and an enormously distended vagina, caused by rupture of the perineal body, or a partial laceration of the perineum, which had been evidently overlooked by the attending accoucheur, who was, doubtless, misled by the fact that no external evidence of any such accident existed. The

treatment consisted of a very simple plastic operation within the vagina, and supporting the uterus until the wound became perfectly cicatrized. The operation consisted in simply snipping off, with a pair of slightly curved scissors, a portion of the superabundant mucous membrane of the posterior vaginal wall. This was very easily accomplished by putting two fingers of the left hand, back downward, into the vagina, and seizing as much as was desirable of the mucous membrane between the fingers, and snipping off the protruding portion. The edges of the wound were brought together by interrupted sutures, after which the vagina was found to be two inches smaller than before the operation. The uterus was held in place by the same instrument as in Case No. 1. She was able to dispense with it much sooner, however. She only wore it two months, when she was able to get along without further mechanical help.

I have cited these two cases because they are extreme ones, and because they both made perfect recoveries. Without claiming any particular skill upon my own part, it would seem that if these cases of so many years' standing were enabled to recover, the thousands of more trivial and recent ones ought most certainly to do as much. At the meeting of the American Medical Association, held in Detroit in 1874, before the Section on Obstetrics and Diseases of Women, Dr. Pallen, of New York city, said, at the conclusion of his remarks upon the subject of pessaries, "The rule for the introduction of a pessary is, that the instrument should conform as nearly as possible to the natural curvatures of the vagina, and it should be no longer than the distance from the horizontal ramus of the pubis just above the arch, to the posterior fornix of the vagina. In ordinary-sized women this rarely exceeds two and a quarter inches. A pessary of this size follows the normal transpositions of the vagina coincident with the rise and fall of the abdominal contents during respiration. A large pessary keeps up hyperæmia of the vaginal mucous membrane, and induces leucorrhœa, dysuria, and vesical tenesmus."

Conceding this theory to be correct, then, we should be governed by it in the selection of a pessary, and choose one which least disturbs and dilates the vagina. In my judgment the one least likely to do so is some kind of a stem pessary, of which there are three or four of nearly equal merit. In my hands the simple soft rubber ring, held in place by a twisted silver wire stem (described by me in a former number of this journal, and to be had now of almost any dealer

in surgical instruments), has answered the purpose excellently, while its cost is almost nothing. Dr. Wenzel said, in the *REPORTER* for Nov. 23d, "It is essential for a pessary to fit accurately." It is necessary that the instrument should fit, and no other should be used; at least, none which does not admit of being remodeled by the person adjusting it, until it does fit that individual case. Frequently it is necessary to have a greater curve to the stem in a given case; and then the stem should admit of being bent until it fits the axes of the vagina. All vaginas are not of the same length or curve, any more than are all legs, arms, or feet. If it is necessary for the pessary to be worn for any considerable length of time, and many times it is, when cases have become chronic, the part upon which the uterus rests should be composed of soft rubber, from the fact that any hard substance, if left in contact with the uterine neck, will cause soreness, and unless it is closely watched, produce ulceration. The instrument selected should also allow the secretions to pass away, and admit of the free use of the syringe without being obliged to remove the instrument each time it is used.

HOSPITAL REPORTS.

PENNSYLVANIA HOSPITAL.

CLINIC OF PROFESSOR DA COSTA, FEB. 8, 1879.

REPORTED BY FRANK WOODBURY, M.D.

A Case of Disseminated Spinal Sclerosis, Concluded.

GENTLEMEN:—At the close of our last lecture I was engaged in discussing with you a case of multiple sclerosis, affecting more particularly the antero-lateral and posterior columns of the lower half of the spinal cord; not limited, however, to the inferior portion, but involving the continuity of the cord as high up as the cervical region and the origin of the brachial plexus, for, as you will remember, the upper extremities also participated in the disease. The impairment of motion and sensibility was very marked in the legs, but as you saw, it was not confined to them; it existed, although to a less degree, in the arms.

By spinal sclerosis I mean such an increase of fibrous tissue, with progressive secondary destruction of nervous elements, as would lead to degenerative changes and serious impairment of function in the affected parts. It may have been preceded by congestion, but it is not distinctively an inflammatory process. In the course of time this condition, which at first was purely a spinal affection, will invade portions of the brain also, and what is now an example of disseminated sclerosis of the spinal cord will then become one of typical cerebro-spinal sclerosis (*sclérose en plaque*). When this occurs, new symptoms will appear in the case, such as tremor, which I will not now stop to discuss.

I have said that this is a case of disseminated sclerosis involving certain columns of the spinal cord, more particularly in its lower part, but extending also to the cervical region. The reasons upon which I base this statement are that, although the difficulty originally was confined to the legs, the arms are now sensibly affected; and also, because of a point which was not sufficiently stated at the time he was before you at the last clinic—not clearly stated because we had ourselves not sufficiently studied it at that time—that there is a want of power in the lips and around the tongue, expressed by more or less failure in motion, and a certain impairment of sensation; his lips feel puffy, swollen, and stiff. This, of course, looks as if the disease were now affecting parts near the medulla oblongata, for those of you who are familiar with the clinical features of such cases, will remember that in these symptoms it approaches a case of bulbar paralysis, or glosso-labial palsy, in which the seat of disease is in the medulla oblongata, in the nuclei of which we find the roots of origin of the nerves that supply sensation and motion to the lips and tongue. I mention this to enable those of you who are keeping notes to complete your records of the last examination.

To return to the strictly spinal phenomena: recall the impairment of sensibility, associated with loss of power in the legs, and the symptoms I have just detailed to you, and you have the patient, as it were, before you for discussion, as he was at the last lecture, when I told you that the anterior and lateral columns, as well as the posterior, must be implicated. That the posterior column is affected, we know, from the disordered sensibility. You remember that we ran a needle into the soles of his feet without causing pain, and you observed also how little sensibility he exhibited to the action of the electric current; electro-muscular contractility, too, was almost gone, on account of defective sensibility. We have, therefore, evidence of disease of the posterior columns, just as we find it in so-called *tabes dorsalis*, or locomotor ataxia, which is due to sclerosis of the posterior columns.

Why not call it, at once, a case of locomotor ataxia; why pronounce it one of disseminated sclerosis? Simply because we have here an amount of actual loss of muscular power which does not happen in true, uncomplicated sclerosis of the posterior columns, cases of locomotor ataxia, or so-called Duchenne's disease, where you will often find groups of muscles acting with a good deal of force; but the difficulty is in combined movements of different groups; the power of coördination is impaired or lost. From the moment that you find the muscular power itself diminished, you must believe that the degeneration has extended from the originally diseased part, and is invading the cells of the anterior cornua, and that the anterior columns of the cord are undergoing similar changes. Our patient cannot walk at all when he is out of bed; he can move the limbs with a certain degree of force while lying down, but not when he tries to walk. This loss of power is demonstrated very clearly in the loss of electro-muscular contractility. Even a moderately strong current failed to make the muscles move. From this

test we can see that motility is definitely impaired, which in locomotor ataxia is not directly affected, or at the most, only to a very slight extent, under the application of the battery; while in this case electricity made the muscles move, remember, it was only a very strong, slowly interrupted current, that gave the slightest result. Therefore, it is from the deterioration of electro-muscular contractility, and the loss of voluntary power in the muscles, accompanied by wasting of the lower extremities, that I have arrived at this diagnosis, and pronounce it a case of disseminated sclerosis of the cord, rather than one of simple locomotor ataxia.

It would take me too long to consider fully the course of the disease, and the many interesting points that are suggested by it. I will merely state that I believe that it began in congestion, and perhaps was accompanied by slowly developing inflammation of the meninges, with subsequent tissue changes along the course of the vessels passing into the cord. The history of exposure to cold, the symptoms of meningitis, and finally the ataxic phenomena, are still fresh in your minds. I can only stop to point out to you that in the slow beginning, incomplete paralysis, and the less marked atrophy, we have a decided difference between this case and those I showed to you at a former clinic, of *polio-myelitis anterior*. I shall not dwell upon the differential diagnosis, and only speak of this because I was prevented at our last meeting. Nor will I at present do more than allude to the treatment adopted. He is taking corrosive sublimate, from which I have had the best results in these cases, pushed as far as it can be borne by the stomach, and given for months at a time. Of course, we must also attend to the nutrition of the muscles; they shall be rubbed, and electricity shall be regularly applied as part of the treatment; we do all this, but, at the same time, depend upon the corrosive sublimate as our chief reliance in checking the progress of the disease. Whether or not it will do good in this case I cannot say; we can only give it a trial. You remember that he was also taking, occasionally, small doses of strychnia, for its tonic effect, and for his vesical trouble, and it might be given hypodermically with advantage, for its local and not for its constitutional effect, which, as you know, would be contra-indicated by this morbid state of the spinal cord. The bichloride of mercury, given for its absorbent and alterative effect, is the main treatment, which I prefer to iodide of potassium in this disease; although the latter has been used, and we might adopt it here should any reason appear to make a change desirable. The treatment prescribed, then, would be one-fifteenth of a grain of corrosive sublimate three times a day, friction and shampooing of muscles, the local use of electricity, two or three times a week (the primary current in preference), and general hygienic care. From the ordinary faradic current sent along the course of the nerves, I must say that I have never seen any effects in cases of paralysis like the present; but the mechanically-interrupted continuous current, from a number of cells, applied directly to the different groups of muscles, increases the muscular tone and aids nutrition, and I have seen good results from its application.

The Significance of Persistent Vomiting in Young Women, and its Rational Treatment.

I will now show you some interesting cases from the women's medical ward, and give a few observations upon vomiting as a symptom of disease. This patient is a German, 25 years of age. Her family history is not good; a sister and her father both died of consumption. She states, however, that she herself has always been healthy. Beginning to menstruate at seventeen, the menstrual function then stopped until she was twenty, and since then has been irregular. She married at eighteen, and became a widow at twenty-four. The irregularity of menstruation was not only during her married life, but occurred prior to it, and has existed since.

She came into the ward with what appears to be a very serious difficulty; she was vomiting incessantly, and had been vomiting for a year; she has been in the hospital just one week. You have heard her statement, that she has been vomiting for a year. Questioning her before you, she says that occasionally she could retain her meals, but of her three meals she certainly lost two every day. She did not vomit between meals. The resident physician, who has watched the case, says that she does vomit at times between meals; her own statement must, therefore, be modified, but the vomiting is certainly aggravated by eating food. She occasionally, but not often, wakes up at night to vomit. She was a stout, healthy woman, but in consequence of this disorder she has become thin and pale, although at this moment she does not look quite so pallid and wretched as she ordinarily does. She has picked up wonderfully within the last few days, and she has not vomited at all to-day.

The first thing to be done was to examine the vomited matter. This has been accomplished, with a negative result, in that it was found to contain no sarcine, and no blood cells, nothing but mucus and particles of food.

With the condition stated, there is associated a slight, dry, irritative cough, which she says she has had during the whole period of her sickness, that is for more than a year; please observe that there is no expectoration with it.

Before making any remarks upon this case, I will examine with you the gastric symptoms, and the intestinal organs generally. The tongue is slightly coated and flabby; it is broad and indented by the teeth. There is some tenderness in the middle dorsal region of the spine; there is also soreness on pressure in the epigastrium, but there is no prominence, thickening or tumor to be found; nothing hard can be felt in the abdominal cavity, but there is a generally diffused soreness about the stomach, not localized, however, in any particular spot. The bowels, generally, are constipated.

I will examine the lungs, and see if this cough has any meaning; but find that it has not; the respiratory sounds are healthy. The urine has been examined, and does not contain any abnormal ingredients; to read you the actual note, it is as follows: Urine, specific gravity 1.025, acid, contains neither albumen nor sugar, and is of normal color. There has been no fever, and her temperature this morning is 98½.

I have now given you the history and the present condition of this case, and you will ask me what is the cause of this persistent vomiting, and what remedies have been employed that could have stopped it in this short space of time—in not more than three days since the treatment began?

In the first place, what is the matter with the woman? When I saw the patient in the ward and heard this history of uncontrollable vomiting, my first thought was that this is a case of irritable stomach, similar to others I have seen occurring in young women, and associated with gastric ulcer. The appearance of the tongue, her age, the sore spots in the back, along the spine, the vomiting after taking food, were all in favor of this view, but I very shortly dismissed the idea. I knew that gastric ulcers do not have general soreness, but rather localized tenderness in the epigastric region; here it was general. I also knew that if this were a case of gastric ulcer, since it had existed for a year, it should give us all the symptoms of such a lesion; we should have hemorrhage, and above all, we should have pain, increased by eating. The most prominent symptom, pain, was absent; the next most prominent symptom, vomiting of blood, was also absent. I therefore rejected this, for another idea. In the last year I have seen three cases, two in private practice, and one in this hospital, in which there was incessant vomiting; the patients were reduced to the verge of death—vomiting, vomiting, vomiting; nothing stayed upon the stomach; in these I found that the difficulty was not an ulcer of the stomach, but was due to reflex irritation from some other organ which itself was the seat of disease. The cause of the trouble, I discovered, was some form of flexion of the uterus, with congestion, and perhaps more or less ulceration. This was the cause of the irritation, and the vomiting in these patients at first resembled, in its pathology, the vomiting of pregnancy, but in the course of time became complicated with some gastric catarrh, from the long continued functional disorder.

In the light of this experience I began to suspect that such was the case here. An examination was made, the result being that a retroflexion of the uterus was discovered. Now, of course, the case begins to clear up. It is one of reflex vomiting, with some gastric catarrh, going on for an entire year, in spite of the greatest care in regard to diet and general treatment.

When she was admitted into the hospital she was simply put upon a diet of milk and lime water, until her condition should be observed. The vomiting continued; although it lessened under the strict diet, it did not disappear. Now, you wish to know how we have checked this vomiting, how accomplished this result? I gave her the treatment that had been previously successful in my experience—the application of ice bags to the spine, between the shoulders, leaving them on for some time, until the skin is thoroughly cold and she begins to feel chilly. She has had absolutely no internal treatment; the diet has been the same; but she has improved almost from the first day of the application. Now, gentlemen, you will not always be as successful in the use of this remedy alone; but

as I know from experience its value, I was determined to give it a trial. Is there nothing we can combine with this treatment? Yes. Remember that we tried it alone here, because we have not as yet found it necessary to use anything else in these cases. I have also used the bromide of sodium, which lessens reflex irritability and is not offensive to the stomach; it may be given in ten or fifteen grain doses, three or four times daily. I also purge the patients occasionally by stimulating enemata, or a saline aperient by the mouth. If the stomach will bear it, any of the bitter waters, Vichy or Carlsbad, will answer well. I occasionally, also, use a blister to the spine. I do all this quite irrespective of any treatment that may be called for by the uterus itself, which should receive early attention. In our patient we have not resorted to anything in the way of systematic local treatment, but she shall have, to-day, an appropriate pessary introduced; but you may now see the effects of the general treatment before any local remedies are used. No permanent reliance, however, can be placed upon palliative measures until the source of the reflex irritation is overcome; while, on the other hand, the long continued habit of vomiting may not be made to cease immediately simply by the removal of the uterine disorder. These cases of chronic vomiting are difficult to manage, and you will often find them unsatisfactory to treat.

The diet shall be gradually and cautiously extended. Her tongue is cleaning, and it will not be amiss to give her pepsin—say five grains of saccharated pepsin three times a day, while the ice bags are continued, to keep down the irritability of stomach and the sensitiveness of the spinal cord. These shall be applied at least twice a day. If you like after a while to give some bitter tonic, it will come in very well.

Before dismissing this patient, I will call your attention to the resemblance which this case bears to what is called purely hysterical vomiting, but in which you will not, as a rule, find any marked ulceration, or flexion of the uterus, as we have here. Moreover, in this case we have not the symptoms of the nervous state which has been termed hysterical. The maladies are similar but not alike. In conclusion, I will remind you that in so-called hysterical vomiting you need not expect the same results from treatment that we have obtained in this case.

Hematemesis and its Management.

This is another patient suffering from vomiting. She is 55 years old, single, and comes from a family said to be healthy. Her own health, prior to her present illness, has not been bad, considering her age and occupation (that of a cook), which is rather a sedentary one.

For a long time she has been suffering from what she calls dyspepsia, with constipation, flatulence, and occasional sick headache, and with a certain amount of pain in the stomach. After a while she noticed that the abdomen began to swell, and became painful. She has vomited blood twice, exclusive of this morning. Her general health has failed a good deal. She has lost flesh, and has become pale and anxious looking.

Now, gentlemen, to-day she vomited blood again, and I shall consider her this morning in a double aspect; first, as a case of hematemesis, and secondly, in connection with her general gastric symptoms, after the manner in which I have already sketched the other case. If my time prevents me from completing the discussion this morning of the second topic, I will, at least, complete that concerning the hematemesis, its cause and treatment.

You recall the fact that she has been vomiting for a long time, and she tells us that prior to admission she had attacks in which she vomited every day for several days, and then escaped for a week or more. She also had pain in the stomach after eating, and sometimes, not always, there was pain, lasting for a couple of hours, after taking food. She also had attacks of gastric pain, whether she took food or not. Finally, she comes into the hospital for the relief of the vomiting mixed with the other gastric symptoms which you have just heard detailed. This morning she vomits what I now exhibit. While the case is still fresh in your minds, I show you this vomit—black, coagulated, half digested blood, resembling coffee grounds—the typical discharge of hematemesis. Quite independently of any preceding lesion, it is evident that this morning there has been a rupture of vessels in the mucous membrane of her stomach, and bleeding has resulted. There is, I should judge, about three-fourths of a pint in the basin, of this grumous, dark liquid.

Now, before going any further, we should make sure that this blood is from the stomach. In the present case a glance at the vomit decides this question; blood like this could not come from any other source, and we accept this quite irrespective of any history of previous disease of the stomach. From the point of view of this hemorrhage, let us see what we can do for her relief. Her temperature, all along, has been normal, until this morning, when it went up to 100° (axilla). The pulse is small and compressible. There is soreness in the epigastric region, and her tongue is dry and slightly coated. She looks quite pale and weak.

She is scarcely in condition to permit any very accurate diagnosis of what the original disorder was which has given rise to this bleeding; when the hemorrhage is over we can better decide this point. That it is connected with structural disease of the stomach, everything in the previous history favors; but the discussion of the one question, as to what gastric malady has given rise to it, must be deferred to another occasion. The subjects before us for consideration are, How shall we treat the hemorrhage? and How prevent its recurrence? For the checking of hematemesis, one of the most efficient remedies is ergot; it may be given hypodermically, about ten minims being thrown under the skin at a time; and if there is the slightest symptom of a return of the hemorrhage we shall resort to it. She may also suck pieces of ice, or swallow small fragments. She should be kept perfectly quiet in bed, and be fed *exclusively* by the rectum, by nourishing enemata of milk and beef tea; and if she shows signs of failing, a little brandy may be added to the enema, to be given every fourth hour.

Finally, as a difficulty of this kind is likely to be attended by some inflammation, which is here also indicated by the rise in the temperature, she shall have a small blister applied to the epigastric region.

Ergot hypodermically, ice to suck, nutritious and stimulating enemata, counter-irritation over the epigastrium—you see that no remedies have been ordered to be introduced into the stomach, and this I consider the best method of treating hæmatemesis—allowing the patient to swallow neither medicine nor food, and nourishing her by the rectum exclusively, until the symptoms are relieved.

Should this treatment not succeed, I would recommend that a small quantity (ten drops) of turpentine shall be given in emulsion, with broken doses of morphia (say one-twenty-fourth of a grain) every third hour. This shall be held in reserve; but I consider the first as the better plan of treatment, and should always give it the preference.

THE NEW YORK HOSPITAL. DISEASES OF THE SKIN.

BY L. DUNCAN BULKLEY, M.D.

Reported for the MEDICAL AND SURGICAL REPORTER.

Herpes Zoster.

In this man we have a beautiful example of the disease known as *herpes zoster*, zona, or shingles. It is, as you perceive, an acute inflammatory affection located on one side of the trunk, reaching from the median line in front to the median line behind, and occupies the space from the fourth or fifth to about the eighth rib; the eruption, you see, is composed of very flat vesicles, in groups, some few groups of papules, and considerable erythematous redness. It is exceedingly rare for this disorder to extend beyond the median line, either in front or in the back; but here you will notice that it does slightly exceed this limit. You know that there is a popular saying that if the shingles extend entirely around the body the patient will certainly die; this is founded, in part, upon the fact that it never does thus embrace the trunk, from the very nature of the affection, as I shall mention later. It can only encompass the body by the simultaneous development of two distinct zosteres, one on each side, at the same height; this I have never seen, though I have repeatedly seen two separate eruptions of this kind on different parts at the same time; and cases are on record where the disease has encircled the body, and that too with safety to the patient. It is interesting to observe how exactly the lesion follows the course of the intercostal nerves; and this is not difficult to understand when we reflect that the disease is due to an inflammation of the ganglia upon the posterior roots of the spinal nerves of the region affected, as has been conclusively demonstrated by a number of post-mortem investigations.

It is probable that herpes zoster is to be attributed, in a considerable number of instances, to nerve injury; as, for example, it has been recorded as occurring as the result of Pott's disease, also from cancerous trouble in the vertebræ. Sometimes the injury to the nerves is due to

violence, and it has been thought that in the present case this might be the origin of the difficulty, since, some time ago, the man received a blow (on the opposite side, however), which has resulted in atrophy of the muscles about the scapula. I should not be inclined to suppose that this had anything to do with the herpes zoster now present; for such attacks as these are sufficiently common (especially in the spring and autumn), and generally seem to occur without any very definite cause, as far as we are able to judge.

In regard to the treatment of such a case as this, there is danger, both of doing too much and too little. This acutely inflamed, terribly sensitive tract of skin should be protected and soothed, but let me caution you never to apply a poultice to these cases, or an ugly, sloughing surface may result. Nor is this eruption well treated by ointments, for grease generally seems to disagree. The plan I almost universally adopt is the following: The whole of the inflamed surface is to be thoroughly dusted with finely powdered starch, and then a muslin band large enough to cover all the affected part is also to be covered with the starch powder and to be applied firmly around the chest, and sewed on, the object being to protect the surface by a covering, over which the clothes will slip, and what little friction takes place between the cloth and the skin is reduced to a minimum by the starch powder. This case requires no internal treatment; the disease, as you know, is self-limited.

- Eczema of the Head and Face.

I bring this old man with eczema of the head and face, who has been presented to the class before, again before you to-day, in order that you may see the very marked improvement that has already taken place in his case. When you first saw him, it was a case of acute erythematous eczema, (*eczema rubrum*), and in some portions the eruption, you remember, was very moist. It was greatly aggravated just behind the ears, and the ears themselves were stiff and in a state of fixation, appearing almost as if they would break off if handled. Now, on the contrary, the moisture has entirely left the eruption, which has dried up to a great extent, and the ears are perfectly supple and movable. He is taking what is known in my clinic as Startin's mixture, of sulphate of magnesia and iron, after the following formula:—

R.	Magnes. sulphat.,	℥j
	Ferri sulph.,	℥ss
	Acidi sulph., dil.,	℥ij
	Infus. quassiae,	℥viij. M.

Sig.—Take two teaspoonfuls after eating, in water, through a tube. Locally he at first found most relief from oxide of zinc ointment (℥j-℥j); he now is rapidly improving under that of tannin (℥j-℥j).

Tinea Tricophytina Capitis.

This boy, nine years of age, has a parasitic disease of the head, which, in this case, is very easy to diagnose at first sight, if one is at all familiar with the affection. It is a case of ring-worm of the scalp, known as *tinea tonsurans*, or, better, *tinea tricophytina capitis*. We see here

a well-marked patch, of about an inch in diameter, just to the left of the median line on the front part of the scalp, of a dirty-grayish color, and apparently devoid of hair. But it is not entirely bereft of hair, as in alopecia areata, for when the finger is passed over it, it is found to be covered with a growth of stiff hairs which seem as though they had been clipped off close to the scalp. These short, stumpy hairs (when we can be sure that the hair has not been cut with the scissors), are perfectly pathognomonic of this disease, and when we once feel them, the diagnosis can be made with the eyes shut. On examining the boy's head a little more carefully, I find another spot in a different locality, which presents exactly the same characteristics, and which was at first concealed by the long hair in its vicinity.

The affection here present is due to a vegetable parasite known as the *trichophyton tonsurans*, which is also the same parasite that gives rise to ringworm on other parts of the body. Now the hairs, as you know, pass directly through the rete mucosum, the papillary layer, and all the structures of the skin, reaching down into the subcutaneous, cellular tissue. Each hair follicle, you will remember, has, practically, two coats, called inner and outer root sheaths; the outer one is continuous with the *rete malpighii*, which I show on the board with yellow chalk, and the inner one is an epithelial layer continuous with the epidermis, shown in red chalk. The bearing of these anatomical facts upon the disease, and its pathology, is this: The *trichophyton* is a vegetable parasite, having its seat in the epithelial layer, and characterized by microscopic spores, or minute rounded bodies, and mycelia, that is, small, jointed, thread-like structures, showing a rounded extremity, and generally exhibiting branches. The spores are the seeds of the disease, which may be scattered anywhere among the epithelial cells. When situated upon the general surface of the body, the parasite, being an air plant, cannot get down as far as the solid portion of the skin, and lives entirely in the epidermis and rete malpighii, but when it lodges on a region that is covered with hair, it follows the epithelial elements down the follicles, even to its very base. The hairs, also, being epithelial structures, are penetrated by the parasites, become brittle, and snap off short, thus giving to the region affected by it the characteristic appearance of having been clipped with the scissors, from which the term *tonsurans* is derived. There is nothing like this either in syphilis, eczema, favus, alopecia areata, or any other disease with which this might be confounded. As I have before had occasion to remark, alopecia areata is not due to a parasite at all; but must be regarded as a true atrophic disease.

Now in order to make the diagnosis even more conclusive, let us attempt to remove some of these short hairs over the affected region by means of the epilation forceps. On doing so, we find that they almost invariably break off; so brittle have they become, by reason of the disease. The best way to practice epilation here would be to apply soap, and then scrape the part well; after which, as a parasiticide, a wash of bichloride of mercury (four to eight grains to

the ounce), might be employed by the physician. Any of you that desire specimens from this boy's head for microscopic examination can have them; and for this purpose it is not even necessary to have a single piece of hair, the simple *debris* or scales being quite sufficient for the diagnosis. Place these portions in a little liquor potassæ and glycerine, upon a slide of a microscope, and with a magnifying power of about 300 diameters you will easily recognize such structures as are shown on this plate, which I now pass around. The disease has been proved to be really due to the *trichophyton tonsurans*, first, because no case of it can be found without this parasite, and, secondly, because it has been inoculated. If the attempt were made to make inoculations from this parasite, it is probable that in not one in ten individuals would it succeed; but the fact that it did succeed in some would show it to be inoculable. That it should fail in the others would simply be because the soil, so to speak, would not be in a proper condition for its reception; just as an infectious disease will not attack all persons who are exposed to it, and may not attack some whom it might at a different time and under other circumstances. But when you have a proper soil, it is easily communicated, and it is not at all uncommon to be able to trace the source of the disease to some other person; and generally patients present several points of the disease which have been auto-inoculated.

This is a much more important affection than you would be likely to think. When it breaks out among the children of a public institution, for instance, it is apt to spread like wild-fire, because all are living under the same conditions, and their circumstances are often just those most favorable for its development and extension. It becomes a matter of some consequence, therefore, whenever you are called upon to give your permission for a child to enter such an institution, that you should carefully examine the condition of its head, as well as the rest of the body, or, at least, inquire particularly into the matter from those who have had charge of it. A child suffering from *tinea tonsurans*, or any other parasitic disease, should never be allowed to enter a public institution until the trouble is completely cured. Such cases do not get well of themselves. It is true that a person in perfect general health, and surrounded by the very best hygienic conditions, might tend eventually to throw off the disease, but even then local measures would be of the highest possible service. In this beautiful model which I now show, you see ringworm upon the scalp and also upon the back of the neck. It is exactly the same disease, but when not situated upon the head it is known as *tinea trichophytina corporis*, or *tinea circinata*.

In the treatment of this affection there is great danger of setting up inflammatory action by means of the agent employed to kill the parasite, unless proper care is taken. Still, it is, of course, essential that something should be used which is destructive of the parasite, or else the disease can never be cured; and the remedies most frequently resorted to for the purpose are some of the forms of sulphur, iodine, and mercury. My own favorite agent is sulphurous acid; though I not infrequently employ corrosive sublimate, in the strength

of five to ten grains to the ounce of water. Among other useful remedies will be found the following:—

Turpeth mineral (yellow sulphuret of mercury), in the strength of from ten to forty grains to the ounce; Costar's paint of iodine and tar; citrine or other mercurial ointments; tincture of iodine; sulphite of soda; and even ink, which has long been known as a domestic remedy for ringworm. Lastly, oleate of mercury and chrysophanic acid must not be forgotten; the former a very cleanly, but not always certain remedy, the latter very certain, but obnoxious, on account of the peculiar purple staining which it gives to the hair.

MEDICAL SOCIETIES.

NEW YORK PATHOLOGICAL SOCIETY.

Excision of the Head of the Femur for Intracapsular Fracture.

Dr. Joseph W. Howe presented the head of a femur which he had removed from a patient suffering from ununited fracture of the femur, of long standing. The patient was a woman, sixty-two years of age, who entered Charity Hospital with an intracapsular fracture of the femur, of three months' standing. During the six succeeding months different methods of treatment were pursued, but without benefit. Eventually Dr. Howe proposed to remove the head of the femur. The ordinary operation was performed, and when the joint was opened about one drachm of inspissated pus was found in the articular cavity, mixed with fragments of bone. The neck of the femur was completely absorbed, and the connection between the head and shaft consisted of a narrow band of connective tissue. A sharp spicula of bone was found at the inner side of the end of the shaft, which, in all probability, caused the severe pain complained of during her stay in hospital. The limb was treated by Buck's extension, and after six weeks no pain was felt on motion. A plaster-of-Paris dressing was then applied, and three months after the operation the wound was completely healed, and she was enabled to move about on crutches without suffering pain. The limb, however, was completely useless, from atrophy following the long period of rest. The joint was completely movable. Dr. Howe knew of no cause why ligamentous union should not have occurred after the injury, as she was in good physical condition. He thought it would have been more wise to have performed the operation before the muscles were wasted, from want of exercise. Dr. Howe was not aware of a similar case being on record.

Gunshot Wound of Heart Involving Aorta—Recovery for Fifty-four Days.

A specimen of heart and aorta was sent to the Society by Dr. F. M. Holly, of Greenwich, Ct., which was of more than ordinary interest, from the fact that a pistol bullet penetrated the right ventricle, septum and aorta, without causing death at the time. The patient was a farm hand, who was accidentally shot in the chest by a Smith & Wesson revolver. After the injury, he

fell in state of collapse, but shortly revived, complaining only of slight dyspnoea and pain in the side. After a fortnight he was sufficiently well to resume his work, and continued so until August 30th, 1878, fifty-four days from the injury, when he died suddenly, when at work.

Post-mortem Examination.—A small cicatrix was seen near the nipple, and on opening the thorax a similar cicatrix existed in the upper lobe of the left lung. The left pleura was found distended with blood which had escaped through an opening in the pericardium. This opening measured one-fourth of an inch.

Opposite the perforation of the pericardium, and on the anterior surface of the right ventricle, a small aneurismal sac was found ruptured. A probe introduced in the rent passed into the ventricle. On making a section of the heart, the ball was found behind the pillars of the columnæ cornæ.

The course of the ball in the heart was that of a direct line, passing through the right ventricle, upper portion of the septum, and contiguous semilunar surface, aorta, and becoming spent in the left auricle, then dropping into the right ventricle. The recovery can with difficulty be accounted for. It would not be difficult if the heart only were penetrated, but it is otherwise with the aorta. The cause of death eventually was the bursting of an aneurism which formed on the outside of the wall of the right ventricle.

Removal of Epithelioma of Conjunctiva, without Injury to the Sight.

Dr. H. D. Noyes presented a patient from whom he had removed an epithelioma of the cornea, without injury to the sight. The history of the case was as follows: A man, 48 years of age, found, 17 years ago, that a black spot appeared on the white of the left eye. It remained without change for 12 years, but then began to grow. At the time of examination by Dr. Noyes it was of the size and appearance of a blackberry. It bled when handled, and projected over the outer half of the cornea and sclera, but the sclerotic was not involved in the growth. The tumor was removed and the flaps brought together. The literature of the subject indicated that of 35 cases, of the nature of the one presented, removal was performed in nine cases, and return took place in one case in ten years; in another no return after two years; in another no return after eight months; in another no return after two years; in another no return after one year. In one the tumor returned three times, and after removal the third time there was no return for eight years. In another case, after a second removal, no return after six years.

NEW YORK NEUROLOGICAL SOCIETY.

Treatment of Trigeminal Neuralgia.

Dr. E. C. Seguin read a paper on the treatment of trigeminal neuralgia by Duquesnel's aconitia, in doses of from one two-hundredth of a grain to one eighty-fourth of a grain, three times a day. Duquesnel's aconitia seems to be different in its action from the other forms of aconitia, and was made the subject of experimental re-

searches by Gréhaud and Duquesnel, in 1871. Prof. Gubler brought it into notice recently, by an article in the *Gazette Hebdomadaire* of February, 1877.

Ten cases were presented to the New York Therapeutical Society, in which the aconitia was administered. The deductions that were drawn from its use were—

That on an average therapeutical and physiological effects were obtained from one-hundredth of a grain three times a day.

That in six cases of trigeminal neuralgia, one was not benefited.

In that one the neuralgia was notably reflex, from a decayed tooth.

Two epileptiform cases were cured, and three temporarily relieved.

That it should be considered as a powerful agent for relieving and curing trigeminal neuralgia.

Form for administration—

R. Aconitæ (Duquesnel's),	gr. .1
Glycerinæ,	3j
Alcohol.	3i
Aq. menth. pip.,	ad 3ij. M.

One teaspoonful (one hundred and fortieth of a grain) two or three times a day, on an empty stomach.

EDITORIAL DEPARTMENT.

PERISCOPE.

The Pathology of Progressive Muscular Atrophy.

A writer in the *British Medical Journal* gives a summary of the latest researches on this subject. The researches of Charcot, Joffroy, Hayem, and others have been generally accepted as having established satisfactorily the dependence of progressive muscular atrophy upon degeneration of the nerve cells of the anterior spinal horns, and the protests of Friedreich have been disregarded. But recently Professor Lichtheim, of Jena, has come to the assistance of Friedreich (*Archiv für Psychiatrie*, Band vii, Heft 3) by publishing a case in which the necropsy was made by Professor Cohnheim, and no lesion was found either in the nerves or cord. The muscles presented the usual appearances of the disease. Lichtheim considers the essential diagnostic features of progressive muscular atrophy to be absence of true paralysis, individual atrophy of the muscles (the affection not involving them *en masse*), and absence of the degenerative reaction to the electric current (Entartungs-reaction); and these characteristics are usually admitted. It is therefore at least noteworthy that his case, typical in its clinical phenomena, should be divorced from the accepted anatomical basis; and, without going further, we may say that an observation attested by two such authorities compels us to make some reservation as to the essential and universal pathology of the disease.

Current French literature supplies us with another anomalous case of progressive muscular atrophy which is not typical either in its clinical features or its post-mortem appearances, but is worth placing in juxtaposition to the above. This case is reported by M. Debove (*Le Progrès Médical*, November 9th), and occurred under the care of Professor Germain Sée. It differs from the type in the presence of fever, the temperature ranging from 101.3° Fahr. to 105.4° Fahr.; in the affection involving the muscles *en masse*; in the presence of acute pains in the limbs; and in the loss of electro-contraction in the affected

muscles, with integrity of sensation and of the various organic functions. The necropsy showed the nerves and cord absolutely healthy, even on careful microscopical examination. The muscular fibres were very slightly granular; but their striation was very distinct, and they were reduced to a third of their volume as compared with normal fibres in the same situation. The nuclei appeared more numerous, but the author suggests that this may have been due to diminution in size of the parts. All the fibres in a section appeared to have undergone the same degree of atrophy, recalling the appearance of the muscles of subjects wasted from long standing diseases, and contrasting strikingly with the appearances in true progressive muscular atrophy. M. Debove believes that this affection differs from all the forms of muscular atrophy hitherto described, and we may join him in the hope that the publication of his case will provoke the publication of other similar observations which may permit us to decide whether it is really a new pathological entity.

An Instance of Latent Syphilis.

The following striking instance of latent syphilis is given by Mr. S. M. Bradley, in an article in the *British Medical Journal*: I was consulted by Mr. X., in 1877, for what appeared to be scrofulous disease of the left testis and adjoining scrotum. He was a strong, healthy-looking man, with an excellent family history, and he told me at the time that he had never had syphilis, though he confessed to a sore on his penis twenty-one years before, which was followed by two suppurating buboes. I regarded the case as one of strumous disease of the testis, though where he got the struma I could not guess; and, after some palliative treatment, I advised castration. This view of the case was corroborated by Sir James Paget, whom he consulted in the spring of 1878; and I accordingly removed the testis and infiltrated soft parts on his return from London. The case went on perfectly well, but I was not a little surprised to hear from Dr. Ross, at that time Path-

ologist to the Manchester Infirmary, who kindly assisted me at the operation, and examined the testis subsequently, that it was beyond all doubt a case of gummatous infiltration of that organ. On again asking him about the character and after-history of the initial lesion twenty-one years before, Mr. X. now said that he could not be sure there had been no rash—he rather thought there had been, but that he had certainly seen nothing afterward to rouse his suspicions of any lurking mischief. He had been married for fifteen years, and had a large family of perfectly healthy children. He himself attributed the mischief in the testis to a blow he received from one of his children two years before, followed by an attack of orchitis, which, subsiding in a few days, had ever since left the organ enlarged and rather tender. During convalescence from the operation he one day fell down in an epileptic fit, and in the course of the day experienced three other seizures. On regaining consciousness, he told me, his head had felt rather tight and uncomfortable for some time, and on examining the scalp I found three small projections (nodes) over the occiput. He was at once put on large doses of iodide of potassium, with a small quantity of pilula hydrargyri, and since that day has never had a relapse. The nodes became absorbed during the administration of the iodide, and his general health and spirits, which had rather flagged, rallied, until he was quite himself again.

Incontinence of Urine in Children.

At the Harveian Society of London, recently, Dr. Farquharson read a paper on this subject. After some preliminary remarks on the bearings of incontinence of urine on surgery and obstetric medicine, he referred to the subject under three headings. In some cases this affection is found in children of pale, weakly organization, depressed and languid, and feeling keenly their infirmity. Here there is, no doubt, some weakened condition of the sphincter vesicæ, or of the nervous centres in the lumbar cord; and tonic remedies, and more especially small doses of wine, will usually act with excellent effect. Secondly, there were cases of much greater severity, usually dating from soon after birth; and here it is necessary to make a distinction between the enuresis by day and that by night, for the latter is much more difficult of cure than the former, and frequently resists all medical treatment—departing, if it do so at all, spontaneously, about the period of puberty. The remedies which have been generally spoken of as most deserving of confidence are those which act on unstriated muscular tissue, and of these belladonna is the only one which, in the experience of the author, has given good results. It is necessary to give full doses, and two ounces have been administered to a boy of seven before success, and even then only temporary success, was attained. Ergot proved disappointing, and santalin has been entirely without influence under the morbid condition. Class three includes those cases which may support the belief that incontinence of urine is truly a neurosis; for here we find this symptom coinciding with, and even alternating with, other nervous lesions. Thus, on two occasions it was observed

concurrently with eczema, and once a very long-standing case was attacked with chorea, during the continuance of which perfect control over the bladder was regained. Nervine tonics are of little use here; but the careful use of galvanism seems specially indicated, as well as blistering over the fifth lumbar vertebra, where modern experiment has shown the motor centre to be situated. The recently proposed plan of excluding meat from the dietary was not found to be of much service, no special acidity of urine being ever observed to require the counteracting agency of purely non-nitrogenous food.

Langenbeck's Operation for Cleft Palate.

At a late society meeting in London, Dr. Geo. Buchanan showed a girl upon whom he had operated for cleft of the hard and soft palate. The cleft began in the middle line of the uvula and extended to the margin of the hard palate, where it went from it on the left of the middle line, and terminated at the second left incisor tooth. This was a very unusual peculiarity. The vomer was completely attached to the crest of the palate, and bounded the right side of the cleft. The operation began by the sawing of the edges of the cleft; then an incision was made along the line of the gum on each side, and the tissues of the palate were raised from the bone; after which the tendon of the tensor palati on each side was divided as it curved round the hamular process. Dr. Buchanan said he preferred this to the operation of Fergusson, who divided the levator palati muscle with a curved knife; and he said the effect of the division of the tendon of the tensor was as marked as that of tenotomy for talipes. This done, the edges came together easily and perfect union resulted, except at the very end of the cleft in front, where a minute hole was left. This he proposed to close, along with a badly united hare-lip which had been operated on in childhood. The result of the operation so far was remarkably good; the palate was quite flat, and the pronunciation of all the letters of the alphabet, even of the sibilants, was nearly perfect. Dr. Buchanan said that, in similar cases, he had seen formation of bone occur in the transplanted palate, and he had no doubt that it would do so here also.

REVIEWS AND BOOK NOTICES.

BOOK NOTICES.

Naval Hygiene. Human Health and the Means of Preventing Disease. With Illustrative Incidents, principally derived from Naval Experience. By Joseph Wilson, M.D., Medical Director, U. S. Navy. Second Edition, with Colored Illustrations. Philadelphia, Lindsay & Blakiston. 8vo, cloth. pp. 274. Price \$3.00.

The author introduces and considers his subject in connection with a slight vein of narrative of his earlier naval experience in the Gulf and South Atlantic Seas. He begins with the date

of his first reporting for sea service, apropos of which the outfit of a naval officer is discussed. From this we naturally glide into a sanitary examination of the ship, receiving the crew, etc. As the voyage begins, sea sickness, home sickness, clothing, food, meals and drinks, come up for consideration, one after another. Later there are the zoology and botany of the tropical countries we are supposed to visit, and fifty pages are given to these, followed by the subjects of liberty on shore, ventilation, quarantine, a battle, epidemics and endemics, prison discipline, etc. Thus, in an easy and agreeable manner, the reader learns a great deal which, if he is a naval officer, will be very much to his purpose, and if he is not, will still be instructive and useful. The book has several very handsome chromo-lithographs of tropical plants.

Diphtheria, its Nature and Treatment, Varieties and Local Expressions. By Morell Mackenzie, M.D., London, etc. Philadelphia, Lindsay & Blakiston, 1879. 1 vol., cloth. 8vo, pp. 104. Price 75 cents.

Diphtheria, its Nature, Causes, Prevention and Treatment. By J. H. Kellogg, M.D. Published by the Good Health Publishing Co., Battle Creek, Michigan. 1 vol., cloth. pp. 64. Price 50 cents.

The small book by Dr. Kellogg is of a semi-popular character. It is chiefly drawn from the article in Ziemssen's *Cyclopedia*, and to that extent contains good stuff. The plan of treatment recommended is not novel; and that it was "uniformly successful" in more than three hundred cases, as the author says on page 43, is a statement so wholly different from general experience, that we must accept it as advanced in a Pickwickian sense, for the benefit of lay readers.

Dr. Mackenzie's monograph is of a very different stamp. It is a learned, brief, and well studied essay. The history of the disease is traced from the time of Pythagoras. The etiology he considers obscure, but inclines to the theory of contagion from a virus so subtle and potent that it may remain dormant outside the body for three years or more, and then give rise to a malignant epidemic. The symptoms, pathology, and prognosis are defined. Various plans of treatment are discussed. In diagnosis, Dr. Mackenzie believes in the identity of membranous croup and diphtheria. The alleged differences between them he undertakes to explain away, not very successfully, as it appears to us. He calls croup "laryngo-tracheal diphtheria," and thinks that

the locality of the exudation lends it most of its peculiarities. In this we believe the opinions of most American physicians need reconstruction, if Dr. Mackenzie is right.

New and Original Theories of the Great Physical Forces. By Henry Raymond Rogers, M.D. Cloth, 8vo, pp. 107. For sale by C. K. Abel & Son, Dunkirk, N. Y. Price \$1.75.

Whenever, in turning to a new explanation of the manifestations of force, we encounter a free use of such phrases as "mysterious nitro-magnetic fluid," "subtle electrical action," and the like, we fall at once a prey to the suspicion that the author knows little of the science which he patronizes, and is one of those who darkens knowledge with words. In this category we must place the present author. His notions are in violent contradiction to simple facts, and yet are expressed with the most positive conviction. It does not trouble him, for example, in the least, to identify gravity with magnetic attraction, and he does not make the slightest effort to explain why the laws of these forces are so wholly incommensurate if their essential impulse is the same. So it goes all through the book. There is an utter absence of any attempt to reconcile these "new original" themes with positive science. As a joke or a dream the book might pass, but if it is meant in seriousness, we fear the author will have reason to complain of his generation.

Index to Original Communications in the Medical Journals of the United States and Canada, for 1877. Classified by Subjects and Authors. Compiled by Wm. D. Chapin, New York. 1 vol., 8vo, cloth. pp. 48. Price \$1.00.

It is highly gratifying to see the attention which is given by several different parties to cataloguing and indexing the current medical literature of this and other nations. In the large number and rapid succession of medical journals, it is next to impossible to find the articles on any one subject; it requires days of search. But in an annual index of this kind the facility of turning to the subject or the author renders the search easy.

We would suggest to the compiler that he adds, in future, to his labors, references to the articles published in the *Transactions* of the state, county, and specialist's societies, when these are printed; and that more frequent cross references be given.

As it is, the book is well worth the price asked, to every investigator.

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THE SOURCE OF THE DIPHTHERITIC POISON.

The wide-spread prevalence of a malignant form of diphtheria in many localities this winter has led to renewed studies of the probable nature and exciting causes of this much dreaded disease. Although the contributions to these points have been so numerous that the bibliography of the works and articles on diphtheria printed within the last twenty years would of itself make a respectable volume, it is not too much to say that the opinions of medical men are yet very divergent on almost every subject connected with the malady.

In the first place, the diagnosis of the disease often presents insuperable obstacles. This is partly owing to disagreements in the leading text books as to what constitutes diphtheria. It is generally, though by no means universally, admitted that it is a distinct disease from membranous sore throat, or membranous croup.

Sir John Rose Cormack suggests a very small blister on the arm or elsewhere, as a sure test for distinguishing diphtheria from what he calls

"simple membranous sore throat." If the case be diphtheria, the blistered surface will become covered with a diphtheritic pellicle; if it be not diphtheria, no false membrane will appear. The public are too prone to speak of every throat affection by the name of diphtheria; and many practitioners have a habit of falling in with this popular diagnosis, or even of setting the example for it.

As to the nature of the contagion which excites the disease, the sewage or animal ferment theory seems in the ascendant at present. Yet it is true that diphtheria has been prevalent and fatal in the notably healthy and well drained mountain slopes of East Tennessee, miles from any town; it has attacked boarding schools under the constant supervision of intelligent medical attendants; it has destroyed the children of families who prided themselves on the knowledge and observance of sanitary rules.

It has been suggested, and the idea seems to us an important one, that the probable origin of this disease is a primary one, of different form in the lower-animals, which, being transmitted to man, takes on the form of diphtheritic exudation. The vehicle of contagion may be milk; and in one outbreak recently studied by the English Health Officers, there can be no doubt but that such was the source of the epidemic.

No suggestion has been made as to what the primary disease may be. What is known as the "foot and mouth disease" of cows is undoubtedly easily transmissible to the human subject; but its symptoms are well known. We would suggest that in local outbreaks of diphtheria, especially in country districts, where the epidemic is better defined, physicians should inquire carefully, not only into the milk supply, the source of the water used, and the drainage, but also into the health of the various domestic animals which are kept by the families whose members are attacked.

Another view is one not long since quoted in this journal, which attributes the disease to the consumption of starchy food, in the form of the common white potato.

We believe we are correct in saying that diph-

theria has been known to occur as an epidemic in that class of the population of the Gulf States who hardly know what a white potato is, and whose diet is almost exclusively corn, bacon, and sweet potatoes. On this point, if we are in error, there are many readers who can readily correct us.

The efforts to isolate the contagium vivum of diphtheria have not been attended with success. Experiments to propagate it have, so far as we have noted the reports of investigators, proved futile.

It is a disease only moderately contagious under ordinary circumstances; and the curious spectacle which it occasionally presents, of springing up suddenly in a locality, becoming epidemic, and raging for a time with the utmost virulence; and at another time of clinging with tenacity to a particular house or limited district, even to a particular room, attacking every person who inhabits it, and never spreading beyond, are strange and yet well authenticated examples of the unusual nature of the poison we have to deal with.

NOTES AND COMMENTS.

"Grub in the Head."

Farmers think this is a common disease among sheep. But one of the few cases we remember to have seen recorded in the human subject is reported by Dr. Landon, in the *Berlin Klin. Wochenschrift*, No. 49. A workman, 42 years old, soon after the Franco-German campaign of 1870, was laid up with pain in the hepatic region, jaundice, and gastric disturbance, which symptoms persisted more or less until 1874, when he came under Dr. Landon's care with an attack, apparently, of perihepatitis. It then appeared that since 1871 he had suffered from severe attacks of epistaxis, which occurred often twice in the same day. The patient complained of a feeling of painful pressure in the left nasal cavity, but with the speculum nothing but a moderate degree of inflammatory swelling could be detected. Suddenly, at Easter, 1878, a parasite was dislodged from the left side of the nose by a violent sneeze, and from that moment the epistaxis ceased. Its cause proved to be the *Pentastoma tenioides*, a fluke which in the perfect state inhabits the frontal sinuses and nasal cavity of

dogs and other carnivora, and occasionally of horses and goats. The embryos live encapsuled in the pleural and peritoneal cavity of some herbivorous animals, and invade the liver. After a time they pierce the capsule, and wander in the body of their host, finally, unless he dies meanwhile, again becoming encapsuled. If the flesh of the host is eaten uncooked, the flukes find their way, in the second host, to his nasal and frontal sinuses, where they remain. It is not known how they enter man, but they are sometimes found in the liver.

Amblyopia from the Use of Tobacco.

In a late article on this subject M. Guéniot states, as the result of his observations—

1. That the amaurosis of nicotin begins always in one eye, and never affects both eyes equally from the beginning. The patient sometimes sees objects yellow.
2. From the beginning the patient sees as in a mist, which gradually becomes more obscure. Along with this mist there exists a central scotoma.
3. There is at first a weakness in the central power of vision, while the peripheral perceptions remain normal.
4. Guéniot had never observed any especial pain or headache. The patients do not see so well toward the evening.
5. The pupils are almost always contracted and immovable.

Guéniot gives the following as the distinctive diagnosis between the amaurosis of nicotin and of alcohol. The amaurosis following the abuse of alcohol begins in both eyes at once, while that of nicotin is at first always unilateral. In both diseases there is central scotoma, but in the intoxication of nicotin alone are there muscæ volitantes. There is pain with the alcohol amaurosis, and the patient sees better toward the evening. The reverse is the case after amaurosis following the use of tobacco. Both diseases may end with atrophy of the papilla, but the amaurosis of nicotin progresses most quickly.

Of the Nature of Mumps.

M. Fehr, in an article in *Von Langenbeck's Archiv.*, decides that it is right to consider this disease as infectious, and that, as was already noticed by previous observers, it stands in a definite relation to acute exanthema, particularly to scarlet fever. The occasional swelling occurs in the neighborhood of the glands themselves, while the surrounding tissues only become infil-

trated at a later period. It is, to say the least of it, inaccurate to describe the disease as periparotitis, as is usually done; that it is not parotitis is shown by the fact that in very many cases of mumps it is the sub-maxillary which is either affected alone, or is swollen at first. The infection is not due to the propagation of inflammation of the mouth, caused by secretions from the glands. The observation that in most epidemics of mumps there is a period of incubation lasting several days, with the well known febrile symptoms before the appearance of the local symptoms, as well as the spread of disease, not only to surrounding persons, but also to the foetus, argue for a specific alteration in the blood. The swelling of the mumps is not a catarrhal inflammation, but a morbid swelling of the glands depending upon varying hyperæmia, which only occasions collateral hyperæmia and infiltration of the neighboring tissues, when there happens to be a stoppage of blood in the glands.

Alcohol and Phthisis.

In some "stray remarks," Professor Cleland publishes, in the *Glasgow Medical Journal*, opinions and speculations formed after a number of years of hospital work. Dr. Cleland has "been in the habit, for a number of years, of relying on alcohol in pneumonia, both croupous and catarrhal, as the most important of all remedies;" and was led to the use of this remedy by the "known effect of alcoholic drinks in diminishing the carbonic acid excreted," and therefore in giving rest to the inflamed lung. In the treatment of phthisis, however, Dr. Cleland has found alcohol, in moderate doses of about four ounces a day, attended with bad results, the patients going from bad to worse the more rapidly the more alcohol they took. On omitting alcohol altogether from the treatment, however, the cases became more manageable.

Minimizing the Dangers of Anæsthetics.

In a late address, Dr. C. M. Tidy recommends the following precautions: (1) Choose in every case the safest anæsthetic, and first in our list stands nitrous oxide, then ether, and lastly, chloroform. We should not be justified in saying that the latter should never be used in dental operations, any more than we could say it is never to be used in any other operation, but its use should be confined to exceptional cases. (2) The anæsthetic should be administered at the patient's house. This applies more especially to ether and chloroform. (3) No anæsthetic should

be administered except by a qualified medical man, and, if possible, by an expert. (4) The operator should have nothing to do with the administration of the anæsthetic, and the administrator of the anæsthetic should have nothing to do with the operation. (5) If possible, a third qualified medical practitioner should be present, in the event of something going wrong. (6) Everything that could possibly be required in the event of an accident should be in readiness. There can be but little doubt that of all means artificial respiration, and preferably by Silvester's process, succeeds best in restoring a patient; and also galvanism, which has been somewhat pooh-poohed, has undoubtedly done good in such cases, and should never be left untried. But artificial respiration must never be abandoned during the time that galvanism is being tried.

The Significance of Forms of the Head.

Dr. Conolly, the late distinguished chemist, wrote:—"As regards the prognosis in cases of insanity, I think I can point out certain heads which never get well—a low and narrow forehead being combined with a high vertex inclining backward, and a large occiput. The approaches to these heads are all bad; often seen in troublesome young people, and *mauvais sujets*. In such cases I find there is frequently a hereditary taint, and that there has been a wayward childhood, some irregular display of talent, ambition greater than ability, and self-esteem enormous.

Ephemeral Paralysis of Babies.

M. Jules Simon, at his clinique at the Hôpital des Enfants Malades, lately drew attention to an affection to which he gives the above name, pointing out that it is not to be confounded with infantile paralysis. It always has one of two causes: first, a powerful constriction, as in one case it was caused by a nurse seizing the child roughly by the arm; second, cold, as in one case in which it was caused by sitting on a wet lawn. It is accompanied by pains and hyperæsthesia. The prognosis is very good, recovery being both complete and rapid.

Discouraging Science.

The English are in a fair way to prevent effectually the study of science in their island. A year or two ago an act was passed forbidding vivisection in the study of physiology, except under onerous and narrow restrictions. Now the authorities, according to the last number of

the *Journal of Mental Science*, have given orders that casts shall not be taken of the heads of criminals! The poor fellows (robbers and murderers) are not to have their finer feelings outraged in this way, for the benefit of their fellow men. Truly, such sickly sentimentality is getting to be contemptible.

Relief of Pain from the Application of Sulphate of Copper.

Dr. Pick, of Vienna, observes that it was by mere accident that he discovered the means of relieving the intense and enduring pain caused by the application of sulphate of copper in diseases of the conjunctiva. As in purulent ophthalmia these applications have sometimes to be made daily, for months, the relief of such suffering is of great importance. The plan consists in sprinkling calomel over the parts to which the sulphate has been applied, four or five minutes after they have been touched. The pain immediately diminishes; and after from three to six days of this procedure, the calomel may be applied immediately after the touching with the caustic, and then the pain instantly disappears.

Removal of Foreign Bodies from the Ear.

Dr. J. Marion Sims has an article on this subject in the *British Medical Journal*. He observes that the first article he ever wrote for a medical journal, in 1845, was on the same topic. He states that the easy removal of foreign bodies from the ear depends upon two things that are indispensable.

1. A light syringe, with a small nozzle, throwing a jet of water suddenly and forcibly, must be used.

2. The auditory canal must be made straight, by traction outward of the lower lobe of the ear, at the moment of injecting water into it.

With these simple directions failure is impossible.

Cause of Death in Hanging.

From some experiments of Dr. Hoffmann, given in the *Journal de Médecine*, it appears that death occasioned by hanging cannot be explained simply by obstruction of the respiratory tracts, but that, on the contrary, the compression of the nerves and vessels of the neck is the principal agent. This applies not only to hanging, but to all methods of strangulation. It has also been proved that it is possible to commit suicide by pressing with both hands on the sides of the neck for a sufficiently long time, and it is well known

that in this way the pulsations of the heart have been stopped and consciousness lost.

The Secret of "Metallo-Therapy."

As Professor Hammond very amply demonstrated in this journal (See REPORTER, vol. xxxix p. 539) the whole of Charcot's teachings about metallo-therapy is but a resuscitation of an old delusion. Dr. Carpenter, the physiologist, has recently shown, from another point of view, that it is an effect of attention and expectancy in nervous and hysterical subjects. It is marvelous how eminent and shrewd observers have been fooled anew by these long familiar phenomena. It is but a rehabilitation of Mesmer's doctrine of the magnetic fluid.

CORRESPONDENCE.

An Interesting Case in Ophthalmic Diagnosis.

ED. MED. AND SURG. REPORTER:—

A very curious case was brought to light in the Jefferson Circuit Court of Kentucky, in this city, last week, in the trial of the case of Patrick McKenzie vs. L. H. Ferrell, for \$10,000, alleged damages.

The plaintiff was a laborer in the employ of defendant, who is a contractor, and was engaged in constructing a way for the water-pipe mains from the water works to the new Crescent Hill Reservoir. McKenzie, in attempting to drill out an old blast, ignited the powder by driving his drill into it, and created an explosion, which not only rended the great stone into atoms, but filled McKenzie's eyes, face and forehead with minute fragments of broken stone and grains of powder. The man was brought immediately to my office, at 10.35 A.M., on Saturday, April 27, 1878. The particles were all carefully removed from the cornea, and a four-grain solution of atropia instilled, to relieve pain, and then every particle removed from the face and eyelids. The patient was sent from the office to St. Joseph's Infirmary, where I visited him a few hours later, and prescribed for the relief of the slight pain he then had. Sunday I saw him twice, as I had other business at the institution. Monday, April 29th, I saw him in the afternoon, and finding the swelling that had existed in the lids the day before greatly abated, the patient being entirely comfortable, the morbid sensibility to light being controlled by smoked glasses, I discharged him from the Infirmary and ordered him to report at my office the next morning.

Tuesday, April 30th, 10.20 A.M. Patrick McKenzie came in, and on close examination I found that all the small wounds that had existed in the corneal surface were entirely healed, the normal transparency being fully restored. Careful examination revealed a small blood clot attached to a vertical rent in the retina of the left eye, near its periphery, on the temporal side, vision, at that time, in this eye, being $\frac{20}{40}$. The

case was now turned over to my accomplished assistant, Dr. William Meany.

About the 1st of June Patrick announced to Dr. Meany that he was totally blind in the left eye, and that he would expect the Doctor and myself both to testify in a suit he had just brought. On testing his sight, by closing the right eye, and rotating the fist before the left, no motion at first occurred in the direction of the optical axis. After a few seconds of resistance, presently the eye would begin to follow the direction of the fist, as it was carried rapidly in a wide circle before him. This proved he at least had some vision, though Patrick maintained that he could not, with this eye, tell a man from a house, that he could barely perceive light, and could not even tell the sunlight from the ordinary diffuse light of day in cloudy weather. My interest in the case induced me to make careful ophthalmoscopic examination. The papilla was, to all appearance, normal; the retinal vessels appeared perfectly so, and the fovea centralis presented a beautiful brownish-yellow tint. The old clot had evidently disappeared by absorption, leaving a hair-line cicatrix to mark the retinal injury. I made an engagement for a subsequent attempt at determining the actual state of vision, as far as possible, but Patrick did not call again.

In October last I was summoned as a witness in court. I did not attend; Dr. Meany went, and testified to all the main facts above stated; the jury failed to agree, and were discharged. I heard that two jurors, favored giving one cent to plaintiff, and ten were for defendant. The case was again set for January 23d, 1879. Having been previously summoned, I appeared on that day, and testified as above, when, on hearing that McKenzie had declined to allow me the chance of trying to ascertain the exact amount of vision in his left eye, Judge Jackson at once adjourned the trial, to allow time for the examination, and ordered the plaintiff to appear at my office and submit to such tests as I might choose to apply. The matter was arranged for half past nine next morning, and it was expressly agreed by the attorneys on both sides that the result of my investigations should be stated in a sealed letter, by me, to the court, and accepted as evidence, without my having to appear again in person. McKenzie called at the appointed time. Having some doubts about the cause of the persistent dilatation of the pupil of the left eye, I at once instilled a two-grain solution of eserine, which in half an hour reduced the size of the pupil more than one half, thus tending strongly to confirm the suspicion of atropia mydriasis. Professor Snellen's collection of alternate slips of red and green glass on a white background was arranged in a frame in the window, each piece of glass having Snellen's test letters pasted on it, and the patient, placed at a definite distance, was requested to look through two colored disks and state what he saw. The green glass being placed before the right eye, the red before the left, he saw the letters on both the red and green background. Reversing the position of the red and green disks made no difference whatever. Now, if Patrick McKenzie had been only partially blind in the left eye he could not have seen and recognized the letters as he did;

because, with the green disk before the right eye, the left one being even partially blind, he could not possibly have seen the letters on the red background, and with the red disk interposed he could not have seen those on the green. He was then placed in another position, and requested to read the test letters on a large card; as soon as he turned to look, a frame was interposed containing a disk of frosted glass in the right side, and a lens — $\frac{1}{2}$ in the left. His vision was noted from his statement, and then the concave lens was neutralized by a convex glass of equal refraction; he immediately proclaimed an improved state of vision exactly commensurate with the changed state of refraction. Of course, in neutralizing the concave lens before the left eye, a similar lens was held before the opaque disk that screened the right, to avoid attracting his attention. Being closely watched, to prevent his closing the right eye, he would frequently announce what he saw, and say, "I see it illigant wid me roight, but sorry stem wid me lift oye." I have been informed by persons who were present at the reading of my statement that it created quite a sensation in court. The jury found for the defendant. The tests were infallible, and the verdict could not have been otherwise in the light of the facts. DUDLEY S. REYNOLDS, M.D.
Louisville, Ky.

Diphtheria, Alcohol, and Chlorine Water.

ED. MED. AND SURG. REPORTER:—

In the REPORTER for February 8th, Dr. J. H. Nowlin, of Rome, Georgia, claims that he discovered the antagonism of alcohol to the poison of diphtheria, in 1860. If he did not first discover it, he did first publish it, in 1875. If he will examine Ziemssen's *Cyclopaedia*, vol. 1, page 681, published by Wm. Wood & Co., 1874, he will see that Ertel says, "The most suitable remedies to meet the indications of opposing septic infection and general poisoning of the system successfully, are, on the basis of experimental investigation, alcohol, freshly prepared and properly diluted chlorine water, solutions of permanganate of potash, and carbolic acid, etc." Ertel, of course, knew its use prior to that. My experience is that chlorine water is the best antiseptic for the poison of diphtheria, and surpasses alcohol.

I have used chlorine water since the summer of 1872, and would not exchange it for any other single remedy that I have ever used or seen used. I cannot claim that it will cure every case, and yet I might, were I to make my diagnosis in accordance with my success, as some do. In that case I would call all fatal cases membranous croup, croup and diphtheria, or malignant tonsillitis.

I am certain that I do not know any remedy that will cure every case of diphtheria. The following is the formula I use in the preparation of chlorine water:—

R.	Chlorate of potassium,	gr. xx
	Hydrochloric acid,	℥xx
	Water,	℥iv. M.

Prepared as follows: pulverize the potash and put in a dry vial, then add the acid, corking the vial, to retain the chlorine set free by the reac-

tion. After that has ceased, add an ounce or two of the water, agitate until all of the chlorine is suspended in the water, then add water to make it the desired strength. Dose, teaspoonful every two or three hours, as required.

It ought to be of a green color, and it will lose that if not kept in a dark-colored bottle, wrapped in colored paper, or kept in a dark place. The medicine ought to be freshly prepared every second or third day.

With that I use nourishing diet, stimulants, and tonics, as indicated in each case, avoiding cathartics entirely, if possible, using injections of warm water to open the bowels when necessary.

I. B. WASHBURN, M.D.

Rensselaer, Indiana, Feb. 13th, 1879.

NEWS AND MISCELLANY.

Convention of Medical Colleges.

In compliance with the action taken at Buffalo last spring, by the American Medical College Association, its Acting President, Prof. N. S. Davis, of Chicago, has designated Atlanta, Ga., as the place of the proposed convention, and the time at 10 A.M. Friday, May 2d, 1879. It is earnestly hoped that delegates from all "regularly organized and accredited medical schools" in the United States will promptly meet at the above designated time and place. That the action of the convention may be definite, it is desired that each college send two delegates, with full power to act for their respective institutions—one of these delegates to be selected from the Board of Trustees and one from the Faculty.

In general terms, the object of the convention is to adopt some "uniform system of instruction more in harmony with the requirements of the age." Among the questions appropriate for discussion and decision may be mentioned, "Shall all the colleges require attendance upon three regular courses of lectures during three separate years, ere admitting students to become candidates for the degree of M.D.?"

Is any uniform system possible in this or other things? If so, to what extent is it possible or even desirable at the present time? Each doctor in the land doubtless has in his mind an ideal medical college system. But this convention cannot act upon idealities; it can only act upon that which is practicable to all honest, efficient medical schools.

To avoid misconception, let it be distinctly noticed that, although this convention is called by the "American Medical College Association," it is entirely distinct from that body. When assembled, the convention will elect its own officers and adopt its own methods for transacting its business in pursuance with the object of the call.

Sufferings in Brazil.

The Surgeon General, Marine Hospital Service, says, in his last report: The U. S. Consul at Pernambuco reports that in the interior of the province of Ceará a severe drought has prevailed for two years and a half, no rain having fallen

during that time; the excessive dryness caused the disappearance of the innumerable small streams which furnished the whole water supply of the country, the consequent death of nearly all the cattle and sheep, and the complete destruction of the usual means of subsistence of the population, which is wholly an agricultural one. The people have been reduced to subsistence on roots, cotton pods, reptiles, and any living or dead thing that would sustain life, some resorting even to cannibalism. In the winter of 1878 smallpox appeared in epidemic form, and caused a frightful mortality among the starving people. A general flight of the people from the interior to the coast cities occurred. The normal population of 25,000 in Fortaleza, the capital, was quickly raised to 100,000, the squares of the city being filled with thousands of unsheltered people, dying of disease and starvation. One-half of the original population of the city have died of smallpox. In the new cemetery of Lagoa Funda, opened in the middle of last year, there were 60,000 interments up to January 1st. The number of burials from smallpox alone, between November 1st and January 1st, in this cemetery, were 24,470; the total interments in the city for the two months being 31,571. At Parahyba, 12,000 refugees out of 15,000 who had fled to the port, died, and similar distressing accounts are given of the other coast cities. The Consul estimates the usual population at 900,000 of whom 500,000 have died of disease and starvation. The Brazilian Government have expended \$10,000,000 for the relief of the sufferers. At last advices slight rains had fallen in the interior, and it is believed that the worst period of the scourge has been passed.

Suits for Malpractice.

Indiana bears the bell, at present, for malpractice suits. The case of Elizabeth Huntzinger vs. Doctor F. F. S. C. Grayston, of Huntington, for malpractice, in alleged salivation, fourteen years ago, claiming \$15,000 damages, was decided in the United States Court, last week, in favor of the plaintiff, giving her judgment for the sum of *one cent*. The doctor is one of the most prominent physicians in the northern part of the State, a professor in the Fort Wayne Medical College. The plaintiff pays the cost in the suit.

In the town of B., same State, a reputable physician, Dr. G., has been sued by a woman, who, in consequence of a severe injury, dislocated her ankle, and broke both bones of the leg, with a severe injury to the knee, and was disgusted that the functions were not perfectly restored. Her damage was modestly laid at \$3000.

The Foundlings' Turntable.

Some time ago the authorities of Paris, in a temporary attack of "reform," abolished the *tour* or turntable on which infants were deposited at the doors of the foundling hospital, and thus placed in shelter without the mother discovering herself. But infanticide has so largely increased since this was abolished, that not only has the original one been restored, but, instead of one

general tour for the reception of abandoned infants, there is one for each arrondissement or district. The buildings are situated in the most conspicuous places in the public streets, the offices are kept open day and night, and the employés are sworn to the utmost secrecy, any disclosure being met by a most severe penalty. Every facility will be afforded to mothers and others for depositing infants at these establishments, which will be provided with a staff of medical men, nurses, inspectors, etc., who will be under the immediate control of the Minister of the Interior.

The Filthy Condition of New Orleans.

The inhabitants of New Orleans are again bidding high for an epidemic; their invitation to yellow fever is pressing and urgent. A correspondent of the daily *Times* of this city writes, Feb 13th—

"The sanitary condition of this city, however, is exceedingly bad, and not calculated to impress visitors very favorably toward us. In all my experience here, of nearly a quarter of a century, the streets, gutters, and general drainage of the place has never been in such a bad and disgustingly filthy condition. Everything that is calculated to cause miasmatic vapors, poisonous exhalations from cesspools, garbage, decaying matters, and nastiness of the most dangerous character, is lying around loose in every quarter of the city. The streets are more disgustingly filthy, pestiferous, malarial and poisonous than at any time in my recollection. As the Board of Health is comparatively powerless and thoroughly incompetent to the task of taking care of the public health, we need not expect anything will be done to prevent the recurrence of the terrible experience of last year."

If this is so, the natives of that city will deserve neither pity nor aid if they are again decimated by the pest.

The Climate of Italy.

A recent observer who has been studying the meteorology of Italy, states that the places which are nearer the Mediterranean have a much higher temperature during the winter than those which are situated toward the centre of the peninsula. The borders of the Adriatic are much colder than those of the Mediterranean. Thus, at Venice, the mean temperature during winter is only 39.27° Fahr. During the summer the same places we have quoted before as being coldest in winter are the most exposed to heat. The mean summer temperature is much higher in Turin, Alexandria, Pavia, and Guastalla, than in the seaside towns of Naples and Leghorn. The heat during the months of July and August is by no means greater at Rome and Florence than at Turin, Aosta, Moneléré, and Milan. In the northern provinces, the mean temperature of the month of April is a little higher than that of the whole year, while the mean temperature of October is a trifle lower. In the central and southern provinces the reverse takes place, October being much hotter than April.

OBITUARY NOTICE.

Dr. W. M. Fitch

Died in Charleston, South Carolina, February 4th, 1879, in the 56th year of his age. He was born in Columbia, S. C., September 8th, 1823, and was the eldest son of the late Dr. A. Fitch, of that city. He came to Charleston in 1846, and commenced the practice of medicine with Dr. J. W. Smidt, and at the time of his death had the largest practice in the city. He died beloved and lamented by all who came in contact with him.

Items.

—A. D. Langstaff, President of the Howard Association, tells the Louisville *Courier-Journal* correspondent that, as far as he can learn, every vestige of the yellow fever disappeared from Memphis, Holly Springs, Grenada, and all of the towns afflicted during the summer, as early as December. He has gone over the ground and made careful inquiries.

—A curious instance of popular superstition was lately brought to the notice of a physician in this city. He received an application from a neighboring State, from a man whose wife had left him, for some medical means to charm her back, the writer adding, "I have heard that you can cause any one to come to their home if they run away from it, and there is any one there that loves them."

Personal.

—Dr. W. S. Neely, of Whiteville, Tenn., was fatally shot, in a personal encounter, Dec. 19th.

QUERIES AND REPLIES.

Dr. C. H. M., of Ohio.—Analyses of nearly all the quack medicines extant have appeared in the *Chemist and Druggist* and other trade journals. We do not remember the one to which you refer. Send us an advertisement of it, and we will look it up.

Ager.—The camp or jail fever described by the Revolutionary surgeons in 1776-7 could hardly have been typhus, as it was marked by colliquative diarrhoea from the outset; more probably it was malignant typhoid, or typhoid dysentery.

Dr. H. K., of La.—Purpura hemorrhagica in the horse is not purpura at all, but a form of typhus. It is a case of misnomer.

Aspirant.—We know of no European University which confers regular degrees (i. e., other than honorary ones) in absentia.

MARRIAGES.

BROWN—SHANK.—In Hagerstown, January 23d, by Elder Edward S. Miller, William B. Brown, M.D., and Mrs. Susan Shank, both of Greencastle, Franklin county, Pa.

KIRKPATRICK—HOLT.—At Davidson College, December 28th 1878, by Rev. A. W. Miller, D.D., Rev. M. R. Kirkpatrick and Laura E., daughter of Dr. W. Holt.